The MAC Flyer

SEPTEMBER 1982

Volant Rodeo . . . Page 16

The MAC Flyer

MILITARY AIRLIFT COMMAND

GEN JAMES R. ALLEN Commander in Chief
BRIG GEN PHILIP S. PRINCE Inspector General
COL LOUIE O. McFERON Director of Safety

LT COL ALAN D. YORK Supervising Editor
CAPT GALE E. CLOUSE, JR. Associate Editor
CAPT BYRON L. HOWARD Associate Editor
FRANCES A. CALDWELL Managing Editor
TOM O'LAUGHLIN Art Director
LT COL DAVID M. H. SIBBALD Contributing Writer

For Greater Safety and Efficiency in MAC Air Operations.

MACRP 127-5 SEPTEMBER 1982 VOL XXIX NO. 9

page 3

page 21

page 25

Ghost in the Cockpit 3
On The Ice 7
They Shoot ACs, Don't They? 10
Mishap with a Moral 13
Volant Rodeo 16
Excellence in Airmanship 19
A Rote Primer 21
C.R. Terror 25
Quick Stoppers 28

The MAC Flyer is published by the Directorate of Safety, Military Airlift Command, and is authorized until 26 Oct 1983, unless authorized to continue before that date. The contents are informative and not regulatory or directive. Names of people and places in mishap stories are fictitious; photos in mishap stories are representative and not necessarily of the aircraft or equipment involved. Information in any article may not be construed as incriminating under Article 31, UCMJ.

Contributions, comments and criticisms are welcome. Write: *The MAC Flyer*, HQ MAC/IGFE, Scott AFB, IL 62225; or call 618-256-3534 or autovon, 638-3534. The editors reserve the right to make any editorial changes in manuscripts which they believe will improve the material without altering the intended meaning.

Subscriptions are available from: The Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Price: $2.50 per copy, $17.00 per year (foreign address $3.15 per copy, $21.25 per year). Changes of address for subscription mailing should be sent to GPO; give old and new address, including zip codes. USAF Active and Air Reserve Forces units establish requirements for this magazine through their publication distributor (DAPD). Other U.S. Military units should consult administrative directives. *The MAC Flyer* is published at an approximate ratio of one magazine for every five MAC aircrew members, and one for every twenty MAC support personnel.

Distribution F, X; OPR: HQ MAC/IGFE
ISSN 0024-788X

Flyer Call

After almost 4 years on the masthead of *TMF*, I depart not only the safety field, but MAC as well. I couldn't leave without taking one last shot at trying to sell flying safety to you, our faithful readers. The biggest selling point in safety is the fact that no normal person deliberately goes out intending to crash an airplane and bring heart-rending sorrow to loved ones left behind. Since everyone generally agrees on this idea in a spirit of enlightened self-interest, then safety should be easy to sell.

The problem is, safety is more than an attitude. It is *behavior* which reflects a highly tuned instinct for self-preservation. It is knowledge not only of machines, systems, procedures and technologies, but also of self. It's those small voices that whisper warnings to us, sometimes even before our conscious minds can sort out all the facts. Therefore, if something doesn't *feel* right, chances are something isn't right. This is an era when trusting one's instincts is no longer fashionable or "quantitatively valid." I say it is precisely our instinct for survival to which we should be more keenly atuned. This instinct can ultimately sound a warning which, if heeded, can allow us to break that crucial link in the chain of events leading directly to tragedy. Trust your instincts and fly safe.

ADY

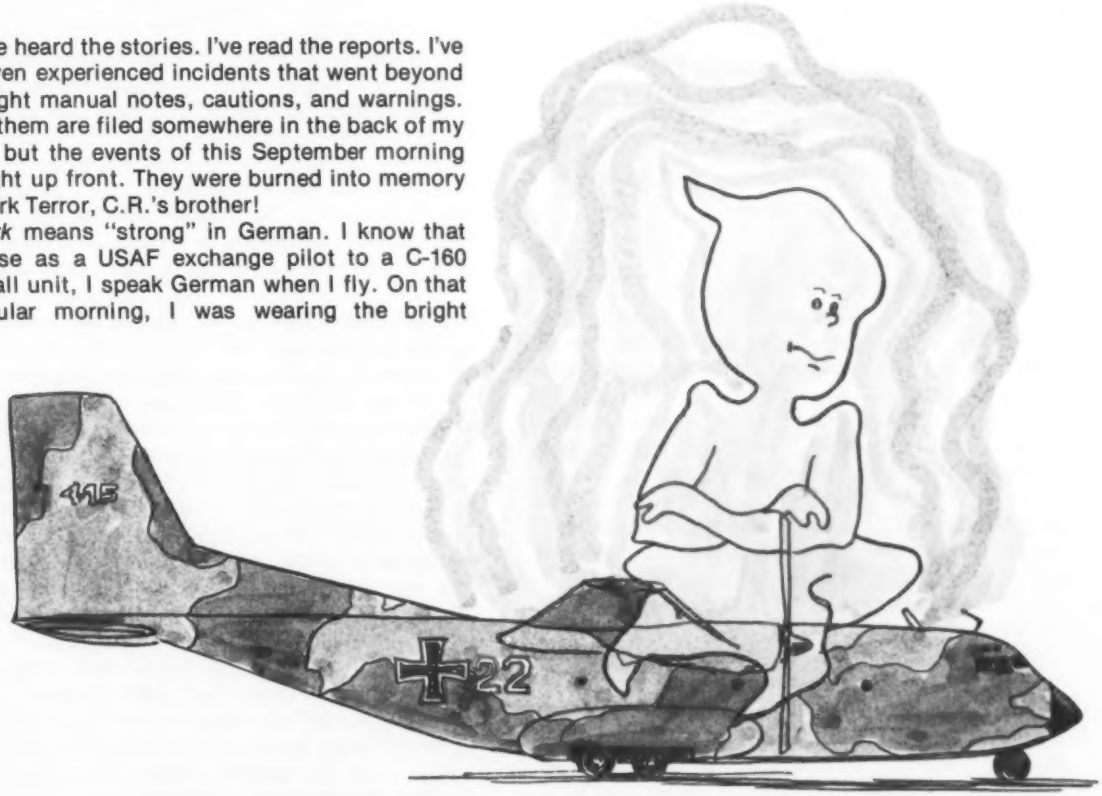
Ghost in the Cockpit

by **Captain Gregory B. Colvin**
Chief, C-130 Special Operations
Career Management Team—AFMPC
Randolph AFB, TX

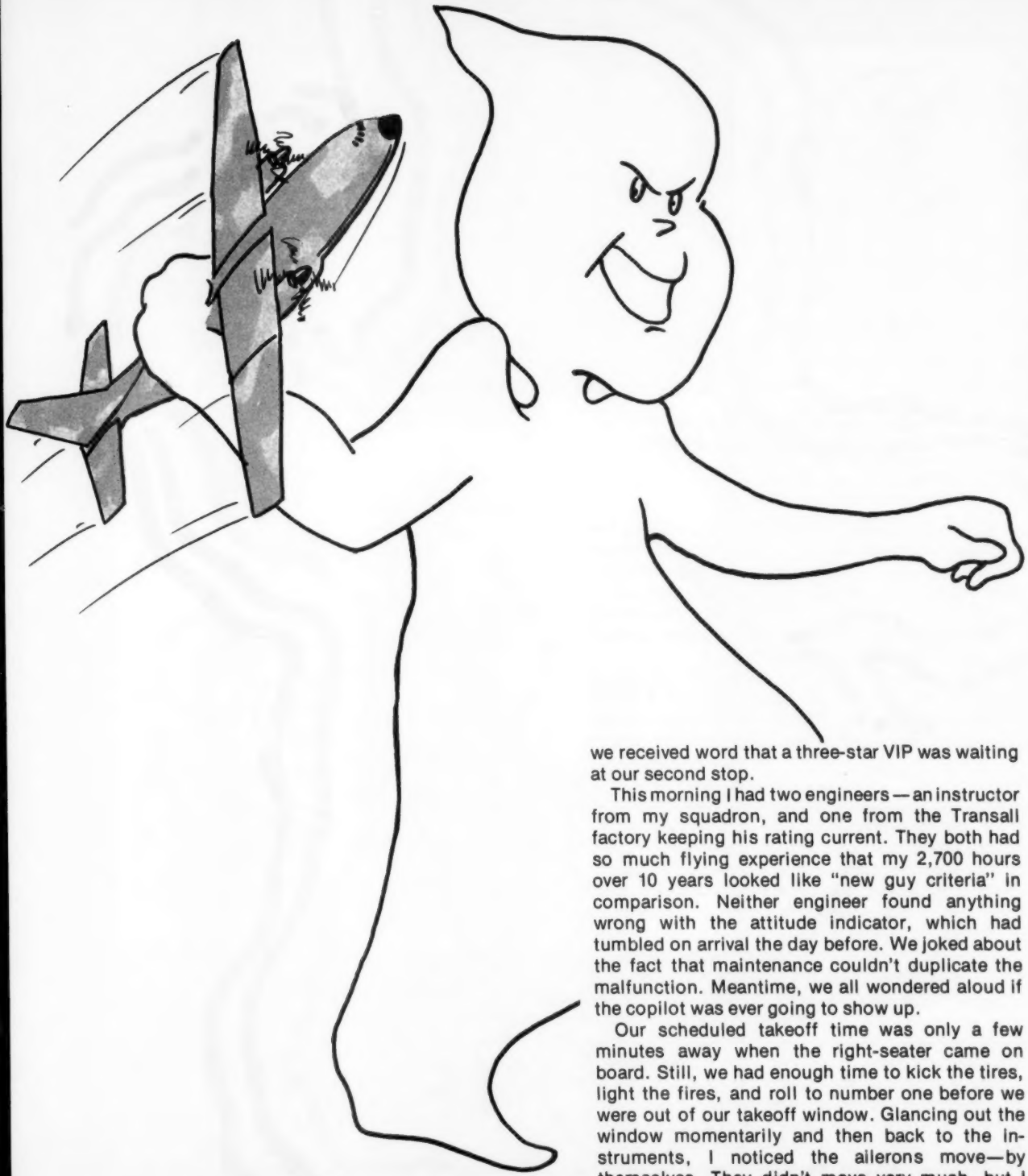
I've heard the stories. I've read the reports. I've even experienced incidents that went beyond the flight manual notes, cautions, and warnings. All of them are filed somewhere in the back of my mind, but the events of this September morning are right up front. They were burned into memory by Stark Terror, C.R.'s brother!

Stark means "strong" in German. I know that because as a USAF exchange pilot to a C-160 Transall unit, I speak German when I fly. On that particular morning, I was wearing the bright orange flight suit of the West German *Luftwaffe.* I was annoyed because the copilot was late for work. This would be his last flight before leaving active duty. I thought briefly about the axiom linking Murphy's law to last flights, but I wasn't too worried. The Transall has an unbelievable maintenance reliability record of 98 percent, and I was sure the copilot would not miss his last active duty flight.

The flight preparations went smoothly enough without him. The weather menu featured thick, soupy, high-pressure haze. Visibility was less than a mile up to 5,000 feet, where it then became clear and a million. The notams showed nothing noteworthy except at our departure base. The ILS and ADF were down for maintenance. The load was tied down, and the passengers were ready to board. As the engineers finished their preflight,



Third Place, 1982 MAC Flying Safety Writing Contest



we received word that a three-star VIP was waiting at our second stop.

This morning I had two engineers — an instructor from my squadron, and one from the Transall factory keeping his rating current. They both had so much flying experience that my 2,700 hours over 10 years looked like "new guy criteria" in comparison. Neither engineer found anything wrong with the attitude indicator, which had tumbled on arrival the day before. We joked about the fact that maintenance couldn't duplicate the malfunction. Meantime, we all wondered aloud if the copilot was ever going to show up.

Our scheduled takeoff time was only a few minutes away when the right-seater came on board. Still, we had enough time to kick the tires, light the fires, and roll to number one before we were out of our takeoff window. Glancing out the window momentarily and then back to the instruments, I noticed the ailerons move—by themselves. They didn't move very much, but I hadn't noticed anything earlier. Even though we

would have to hold for traffic and would be late if we didn't takeoff immediately, I ordered flight control checks by both pilots while the load-master scanned outside. I've had a lot of inflight emergencies, but none are more nerve-wracking than flight control problems. I'm always glad to buy a safe, late takeoff instead of an unsafe, on-time one. Everything looked and felt normal during the checks. Must be the crosswind, I thought, completely forgetting about Murphy's law of last flights.

"Cleared for takeoff. Have a nice weekend," said the tower with high-Friday fever.

The Rolls-Royce turbines spun up smoothly and accelerated us through a normal, medium-weight takeoff.

"Gear up, flaps up, climb power," all *auf Deutsch,* of course.

At 500 feet AGL we were well into the haze when I tried to turn left on course. That was when Murphy's ghost laid down the law. Only a minute ago I had checked all flight controls without feeling anything wrong. Now it felt like there was no hydraulic pressure! I told the copilot to try his controls. Same thing. I took control again and was surprised when the aircraft turned normally, climbing out neatly at 2,000 feet per minute. I wasn't sure if I was relieved or terrified. I found out soon enough.

"Engineer and instructor engineer, there is something strange going on here. Check all hydraulic and electrical systems. Airstart the auxiliary power unit and turn on the aux generator. We might need it."

By now ATC had cleared us to cruise altitude on our own navigation. I had the copilot tell them we were leveling at 3,000 feet with problems. The engineers still could find nothing wrong—all systems were working as advertised, although something had been wrong with controls after takeoff.That revelation bothered me even more and I decided to call off the mission. Something had happened to the flight controls after takeoff and I wanted to know why. The general would have to find another ride home.

"Well, crew. I don't know exactly what the trouble is, but we are *not* going any further to find out. I am declaring an inflight emergency due to flight control irregularity. Copilot, request instructions for immediate landing. Load, keep everyone strapped in and then scan the ailerons again. Nav, tell "mother" we are turning around."

ATC gave us a left turn towards the field and asked for souls and fuel on board. This was the first time the copilot, who was also a qualified AC, had an inflight emergency with the reliable Transall. The "ghost" waited till I rolled out of the turn before playing any more tricks. Then, the aircraft suddenly pitched nose down as the elevator trim, which is mechanical, not electrical, moved itself to the full nose down position. The engineers and copilot tried to stop it, but couldn't. I grabbed the yoke with my best gorilla grip and stood on the rudder pedals, fighting to hold the nose up.

I sat there in an isometric stand-off with the big Transall calmly trying to think about what could possibly be happening. The only way the elevator could run away had to be through the autopilot's electrical inputs, but the autopilot was not turned on. I pushed my autopilot disconnect button anyway, without any change. I told my right-seater to try his disconnect, but that didn't help either. I had the instructor engineer pull all the autopilot circuit breakers. Still nothing. Wrestling

. . . the aircraft suddenly pitched nose down! I grabbed the yoke with my best gorilla grip . . .

the machine and talking with the engineers, I caught a new radar vector but missed a descent clearance. I knew we were close to the air base, although it was invisible in the haze below. I briefly considered a controllability check but decided against it with grim humor. I was in command, but it was terrifyingly obvious that I was not in control.

By then I was soaked with the strain of battling the dark forces that wanted my aircraft to nose-dive back to *terra firma.* When GCA cleared us from 2,000 to 800 feet, I realized I was still at 3,000. I decided to try the landing gear for increased drag and to see what would happen with the wheels down. The pressure increased some, but I did not fight it because by now I needed to lose a lot of altitude to find the runway. Suddenly, the yoke snapped back against my chest and felt light as a feather. I think my heart skipped a beat because it felt like the elevator had separated from the airframe. For the first time in my life, I really thought the end had come. Then the gear locked,

and everything, including the elevator trim, felt normal.

Not for long, though. When I asked the navigator for our range to the field, he told me we had 6 miles to go on his radar. As he spoke these words, the radar pomptly failed. Since I now felt confident I could control the plane, I called for landing flaps. To my surprise, they came down without anything unusual happening. GCA told us we were left of course and we had finally made his radar display approaching glide path from well above. I was slowing to approach speed when my compass began to jump. GCA said we were going further left in spite of his corrections to the right. At that point, number 1 compass began turning left; number 2, right; not to mention the elevator trim nose down again!

My audible aggravation was interrupted by a loud horn blowing. I had heard the stall warning only once before in training, but I recognized it instantly in my super-charged, adrenaline-filled condition. Accident reports flashed through my mind: Stalled the aircraft during a multiple emergency. Although my airspeed indicator showed the correct approach speed, (35 knots above stalling speed), I was in no mood to empirically test which indicator was haunted. I told myself emphatically, I was *not* going to stall on final. I pushed in takeoff power and told my anxious crew we were going around in our sick airplane rather than risk a stall. About the same time I was pushing the throttles forward GCA told us we were too far left for a safe approach. It really didn't matter—we never saw the runway.

With full power I could barely hold a climb against the full down elevator trim. Although I told the copilot to request no gyro procedures, I wasn't totally convinced we could make it through another pattern. I left the gear down anticipating a crash landing.

Calling on the last of my energy, I managed to flail through a series of timed turns back onto final. Flying 20 knots faster than on the first attempt, I began to see approach lights from about 400 feet on glide path. Never had a runway looked so good! We touched down safely and taxied off the runway to hand the C-160 over to maintenance.

When I stepped out of the aircraft, I became useless for about half an hour while my knees, hands, and voice shook me back into a normal human being. I let the rest of the crew fill out the paperwork and start the explanations. Since the things our aircraft did should have been impossible, those explanations were little more than speculations. In any case, the crew and I felt like we had battled a ghost and won against some pretty incredible odds.

Now, I don't really believe in ghosts. But like the Bermuda Triangle, some things exceed the boundaries of reason. When the maintenance report on my aircraft came out, I had to put this flight in just such a twilight zone. Maintenance could not duplicate any malfunctions on the ground. They found nothing wrong with the flight controls, electrics, hydraulics, stall warning—each and everyone checking out as advertised. They found a few minor glitches with the autopilot, but none that could have caused anything like what we experienced, especially since it had never been turned on.

All this just seems to reinforce that ages-old flying adage: things are not always what they seem to be. Murphy's law always applies. So even if you don't believe in ghosts, keep your flying senses and habits on guard to deal with those situations that fall into the category of "other," should old Murphy sneak aboard to do his dastardly deeds. That's the only real way to make sure your next flight isn't your last!

ABOUT THE AUTHOR

After graduating from Franklin and Marshall College, Captain Colvin finished OTS in 1972 and UPT after that at Columbus AFB. His first assignment was with the 1st SOS at Kadena. Captain Colvin's next assignment was with the 7th SOS at Rhein-Main, followed by a tour as a Combat Talon IP with the 8th SOS, Hurlburt Field. For the past three years, he has flown the Transall C-160 with the German Air Force's 61st Air Transport Wing as an exchange pilot.

ON THE ICE

—Resupplying Antarctica

Thanks go to Major Joseph C. Reichal, Jr., Chief of Safety for the 834th Airlift Division, Hickam, and Major Jack Heffernan, Flight Safety Officer, 60th Military Airlift Wing, Travis, for their invaluable assistance in the preparation of this article. Major Reichal deployed as the Safety Officer for Deep Freeze'82 and Major Heffernan has spent some time "on the ice" as a C-141 aircrew member.—Ed.

Antarctica! The very word brings to mind thoughts of ice, snow and cold, and lots of each. In fact, this frozen continent at the bottom of the world holds over 95 percent of the world's supply of fresh water in the form of over 7 million cubic miles of ice. But who's counting? From October through mid-December of each year, some MAC crews and other support personnel have the opportunity to visit this awe-inspiring "iceland" while supporting the scientific research program at McMurdo Station. Operations at McMurdo are always interesting, *always* cold, and continually demand the most of both aircrew and airplane.

Located on Ross Island in Antarctica, McMurdo Station is over 2,000 miles away from the nearest suitable alternate, Christchurch International, New Zealand. As the point of entry to the Antarctic, McMurdo serves as the major staging base for support of inland stations and remote field parties. It's in operation all year but the major operating period is between early October through late February.

Williams Field, skiways 07G/25G and 15G/33G (the G standing for "grid"), and the

Refueling bladders used for all flight operations at McMurdo Station.

Cold weather gear is essential to prevent frostbite and hypothermia.

annual ice runway complex (07G/25G) are capable of supporting ski-equipped aircraft throughout the summer season (November-February), and wheeled aircraft only until *mid-December.* After mid-December, the annual ice runway becomes unserviceable.

The ice runway complex of 07G/25G is located approximately 4 miles from the two skiways, and is built on the seasonal ice pack. Its location varies from year to year. However, its orientation to the main base remains a fairly constant 2½ miles from McMurdo Station. The width of the runway changes, often daily, due to blowing snow and clearing times. If that were not enough to keep you on your toes, the runway weight bearing capacity of the surface also varies. Needless to say, a check with Christchurch or McMurdo Center is a prudent precaution before you attempt an approach.

Ice runway 07G/25G is the primary runway for MAC C-141 crews. Instrument approaches to this runway include both high and low tacan, PAR and ASR. Tacan and radar navaids are normally operational only from 1 October to 1 March each year. Final controllers will give all bearings to the field in grid instead of magnetic bearings. You may understand this a little better since the magnetic variation (this year) is a whopping 145° East. "Starlizard" crews should have their INSs in polar grid mode well in advance of executing any approach into McMurdo.

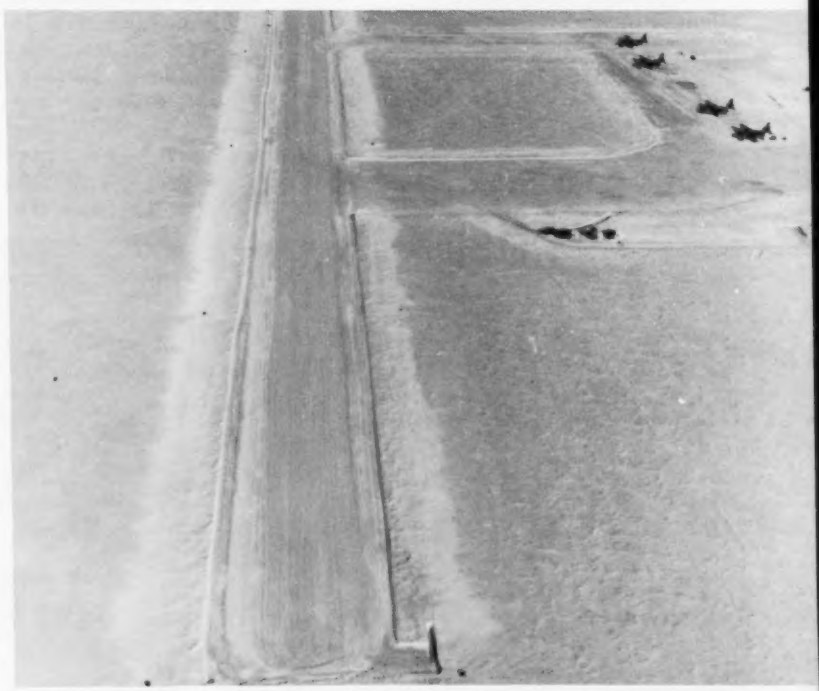
The primary skiway, 07G/25G, used by U.S. Navy LC-130 crews during the "summer" season, is 10,000 feet long and 300 feet wide. It has the same instrument approaches as the ice runway and runway distances are marked at 1,000 foot intervals.

Weather conditions at McMurdo Station can be totally unpredictable. Changes can and do occur rapidly. Antarctic winds can reach incredible velocity, often exceeding hurricane force. Winds at the surface can pick up fresh snow and create marginal horizontal visibility, even though vertical visibility may be excellent. Be prepared to experience landing illusions caused by intermittent "whiteout" conditions. A whiteout usually results when light is reflected back by snow and similarly reflected by cloud undersurfaces and blowing snow. The highly diffused light results in a white, shadowless effect.

Losses of perception from whiteout conditions may include:

- Loss of horizon, resulting in either flying the airplane into the surface, or stalling well above the surface.

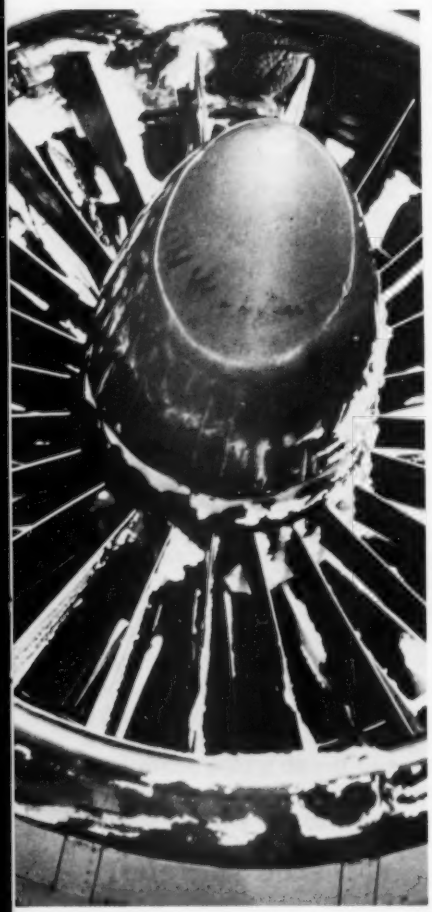
Bulldozer at McMurdo Station makes runway.



The McMurdo Station ice runway is constructed on the annual sea ice. It is used by the USN, RNZAF, RAAF C-130s, and USAF C-141s for the first two months of the summer support season before it melts, breaks up, and floats out to sea.
Photo courtesy: The Navy Supply Corps *Newsletter.*

- Difficulty in assessing the conditions of the terrain—not being able to distinguish humps or ridges.
- Disorientation—prevent this by staying on the gauges.
- Inability to judge distances. Is it a hill, a hump or a mountain?
- Inability to judge height. Goes hand-in-hand with loss of horizon.

The last word of warning here is this: either avoid whiteout, or be prepared to cope with it. In either case, have a *definite* plan of action.

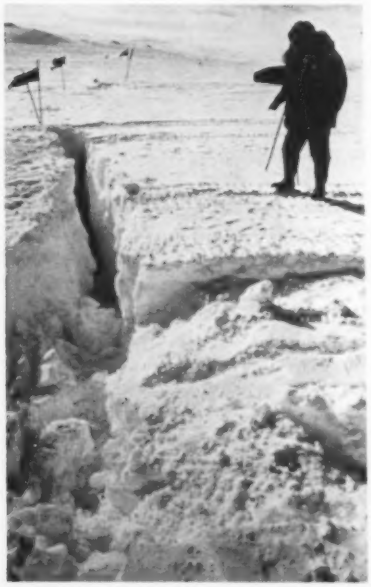


Turbine blades of C-141 engine filled with snow. Antarctic weather is harsh on man and machine.

Even on the clearest day, the environmental conditions at McMurdo can give you the illusion you are flying higher than you actually are. If strong winds, whiteout and height illusions aren't enough to make you want to stay home, consider the problems of radio and radar altimeters. Their readings may be erratic and unreliable over ice and snow.

Well you may say, "I really don't need a radar altimeter. With a mere 7 million cubic miles of ice in Antarctica, McMurdo probably doesn't have any terrain to worry about." Wrongo, "whiteout" breath. The minimum safe altitude within 25 nautical miles of the McMurdo Station tacan is 13,500 feet based on a 12,450 foot peak 20 miles south (grid) of the field. Circling south (grid) of the runways is not authorized.

Adding to this potpourri of flying hazards is the communications problem when flying to McMurdo. Enroute and terminal communications may be subject to atmospheric disturbances unique to this area. Unfortunately, these can include even total obliteration of all transmissions. During last year's resupply operation, for instance, Navy LC-130's were unable to use HF communications for a period of *8* days due to solar storms.



The ice runway is not open from mid-December through April.

And once you're safely on the ground there are still more safety hazards for aircrews. If you don't wear the proper protective clothing, you may be exposed to frostbite on the exposed parts of your body or you may suffer hypothermia (heat loss). To avoid the effects of frostbite, stay covered as much as possible. To prevent hypothermia, do the following:

(1) Never underestimate the cold. It could be fatal.
(2) Dress for warmth and the wind. Pace yourself to keep from sweating and pay close attention to the wind chill chart.
(3) Protect your head—an uncovered head is the leading cause of body heat loss.
(4) Eat nourishing meals; avoid alcohol.
(5) Have adequate shelter available.
(6) Keep active.

Despite all of the limitations, the annual resupply operation, otherwise known as "Deep Freeze," and normal year-around logistics for McMurdo can be safely accomplished. MAC's participation in "Deep Freeze '83" will begin next month when C-141 aircrews from the 60th Military Airlift Wing begin flying the first of approximately 25-27 missions into McMurdo. We wish aircrews the best of luck and safe flying this year as they begin to fly into our southernmost "down under" operation.

A Matter of Priorities . . .

They Shoot ACs, Don't They?

by Lt Col David M. H. Sibbald
Commander, 326 MAS (Assoc)
Dover AFB, DE

Dalgleish, the Wing Commander, was sorry he had asked. For he was now hearing, at great length and in considerable detail, just how the trip had gone. There was little chance for escape because the raconteur was Charlie Macadam, elderly lieutenant colonel, Aviator Extraordinaire, longtime associate and good buddy of Dalgleish. Macadam had a beer in one hairy paw and Dalgleish in the other. That is to say, he had his spare arm around Dalgleish's shoulder and was treating him to Charlie's famous vulpine grin.

"Waddya mean, 'How was my trip?' You're the wing commander and you oughta know better than that! 'Cause I'm gunna tell you how it was. It'll save your reading the HRs and the trip reports." He let Dalgleish go for a second and the slightly rumpled wing commander slid thankfully on to a bar stool. Al, the bartender who was well acquainted with both his wing commander and Macadam and whose radar told him how the wind was blowing, quietly slipped Dalgleish a double. It looked like a long night.

Macadam took a long, thoughtful gulp of beer. "James, listen carefully; watch my lips even, because you're not gonna believe this. I flew four legs, right? Therefore, four takeoffs equals four landings, not counting the bounces, right? On all four landings, I had to emergency extend the nose gear. Yes sir! Four out of four! Every time we landed, they fixed it and then it did it again on the very next leg. Wrote a hazard report, I did.

"They fixed it three times and it still broke. Then, on the third leg out of Turkey, enroute to Spain, the right air-conditioning pack goes berserk and starts blowing red-hot air down the back of my neck. The auto protection has failed, see? So about the time my right ear starts to blister up, I tell the engineer to shut it off. Then we find out we can't hold cabin pressure, so we descend to 25,000 feet to keep the cabin at 10 'cause we've got a full load in the troop compartment.' We 'gin along at 25,000 while the engineers are back in the boiler room malletizing a hot mod valve which is stuck full open. They finally free it up and position it manually and we're back in business. But not quite, since now we're headed up the Med and the air traffic controllers can't get us a higher altitude. No radar down there apparently. They're doing it with 'shrimp boats,' an E6B computer and a Ouija board. Imagine! It's 1982 and it's shrimp boats and a Ouija board! Huh! Well even I know that Torrejon with a Rota alternate is out of the question with the fuel-flow we have. So I sez to the nav, I sez, 'If we get 39,000

in the next 20 minutes, can we make Torrejon?' 'Sure,' he says. I am instantly suspicious; he's brand new and 23 years old. How'd he get that answer so fast? 'Well, if we have to go to Rota, what will we land with?' I ask. '8,000 pounds,' he says."

Here, Macadam gripped Dalgleish by the shoulder again. "James, I, Charlie Macadam, am not running an aerial kiddygarten here. I want a say in the training and checkout of new navigators—among many other things. Eight thousand pounds indeed! Anyway, we eventually get 39,000, slow her down to Mach .66 and it looks like we can be overhead Torrejon with legal reserves for Rota. As we descend into Torrejon, they give us holding instructions with an expected approach clearance in 15 minutes. We advise the young lady that we have no fuel to hang around and that it's either approach clearance or a Rota clearance and whichever it is, we need it right now. Well this young woman didn't get to be a staff sergeant because she's some kind of dunce; quick, like a bunny, she borrows some airspace from the civilians over at Barajas and keeps us coming right in."

Macadam took another long pull on his beer and treated Dalgleish to another version of his toothy grin. "Guess what happened next?" The Wing Commander shrugged.

"You invited her out for drinks and she accepted?"

Macadam, nonplussed for a moment, frowned, then smiled and went on.

"What happened next was the nose-gear didn't come down again, which makes it three outa three. Well your ol' pal, Macadam, isn't known as the Aviator Extraordinare for nuthin,' you know. I put down the gear early and when it didn't do it, we had plenty of time to go through the emergency drill and get it down before we arrived in the pattern. And a good thing, too.

"On short final there's this here camouflaged C-130 in position for takeoff and he sits there and sits there. They yell at him to either take off or get off the pot, but there's no reply. As it turned out, he had a frozen brake and a new copilot—which is some combination, I'll tell you—and here we are making a go-around. We're low on fuel, I'm scared to raise the gear for fear it won't come down again and there's a C-130 tying up the runway. It has been a long and trying day, James, and I'm about at the end of my rope. So I tell my little friend in RAPCON that when I get around the pattern, I'm gonna land over the top of this guy, or I'm gonna put it on the taxiway, or mebbe I'm going to Barajas, but one way or another, I am going to put it on the ground in the next few minutes. She said, 'There, there,' or something equally comforting and then the Herky pilot saved the day by powering his airplane off the runway. Tore hell out of one tire, so it did. 'Charge it to MAC,' I said, when he told me about it later. So we land; total anticlimax."

Macadam drained his glass, flapped his massive hand on the bar. "Al," he bellowed, "another of the same," and ignoring Dalgleish's protests, "another for the colonel, too.

"You're gonna need it, James, this is where it gets interesting. After loading the crew bus, I am passing out some cold beers to the crew in violation of several regulations—but you gotta remember, James, it's been a long day. Besides which, aviatin' is thirsty work and a man my age shouldn't have all this aggravation. Then up comes this maintenance officer. Some lieutenant, about 14 years old, mebee." He frowned again and shook his head. "Are they all getting younger, I wonder, or am I getting older?"

"Older," Dalgleish adjudged, "and unlike a fine wine, not improving with age, unfortunately."

"Huh! Well up she comes and tells me it would be extremely helpful if I would write in the log book that which was 'mission essential' and that without which we could muddle through; sarcastic as hell, too. Now understand one thing—we're lucky to be here at all. What with pressurization problems, altitude problems, fuel consumption and nose gear problems, it was Air Medal-type flying that got us here. A lesser bunch of guys would have been in Sigonella or Decimommanu for gas. Or Athens. *ATHENS!* What was I thinking about passing up Athens? Anyway, here we are after a difficult day, and this brown bar is getting testy with me for failing to make with the MEs and the MCs. With difficulty, I keep my tongue between my teeth and as best as I recall, I say that the nose gear (for the third time, mind you), an HF radio and a hydraulic boost

Macadam had a beer in one hairy paw and Dalgleish in the other.

pump are all mission essential. For reasons that escape me now, I put down the radar as MC—mission contributing. Occasionally, on the way in, it had presented a test pattern, unfortunately to the exclusion of all else. So we enter crew rest, have a couple beers, and hit the sack. But back to our tale.

"Next morning we report bright and early and everything has been fixed. Everything but the radar, that is. And guess what? So help me, it's thunderstorms all quads. And not pussy cat CBs, either; big ones. Genuine cumulonymphus. Cumulonymphi, I guess, 'cause there was a lot of 'em. Anyway, it's 'no go' and so we're back into crew rest and it's all my fault for failure to ME the radar. I know it's my fault because my favorite brown bar maintenance officer told me so. So, it's another pleasant evening in Madrid. The next day we finally make it back here.

. . . we emergency-extend the nose gear—for the *fourth* time!

"When I say we make it back here, I mean we make it back here after we emergency-extend the nose gear for the *fourth* time. A piece of cake it was. Everybody on my crew can now extend the nose gear using the emergency system just like it was a Bold Face item. Anyway, I write a hazard report raising several kinds of hell for having to use the emergency system four times out of four. And then, coming out of customs, I bump into the *Big Pilot*. Matter of fact, he's waiting for me; heard about the problems we'd had; wants some firsthand information so that he can straighten things out. I'm impressed, gratified—touched even. Someone appears to agree that my nose gear problems are of major import and are worthy of high level inquiry. But not so fast, James, 'cause it ain't so. What he's worried about is the potential crew delay in Spain; he's not worried about the possibility of scratching up a C-5 because the nose gear won't come out of the well. Stunned, even hurt I was. It's like alerting everyone to a fire in a crowded department store and then getting sued for the water damage sustained in 'saving' the place. I think we're losing sight of the ball, James. A crew delay for a busted radar is an unfortunate piece of business but four emergency extensions of the gear is a darn sight more serious and that's where our emphasis ought to be."

Dalgleish got up to leave. "James, before you leave, tell me that you're a whole lot more concerned about my mechanical problems than you are about that potential delay."

Dalgleish smiled. "Of course I am, Charlie. Of course I am."

ABOUT THE AUTHOR

Lieutenant Colonel Sibbald is a former "chief wordsmith" of *The MAC Flyer* and has about 13,000 hours airborne in most planes that begin with a capital "C." He can be seen on training weekends behind the controls of a C-5. In his "spare time," LtCol Sibbald flies for TWA. As if this weren't enough, he has just taken over as the commander of the 326th MAS (Assoc) at Dover AFB. He writes an occasional article for *TMF* and is frequently seen weeping over his rusty typewriter.

A Critical Breakdown

It wasn't a birdstrike that caused this crash!

Arriving at the Kalamazoo Michigan airport at 0630 for a 0655 takeoff, the flight crew started their preflight duties which would take them and their 40 passengers to Detroit about a half an hour after takeoff. The first pilot and flight attendant went straight to the twin-engined Convair 580 turboprop while the captain went to check the weather and sign the flight release. When he returned, the crew brought the two Allison D501 turboprop engines to life and taxied to runway 17. Prior to taxiing, though, the crew tuned in the ATIS for one final weather update. It wasn't good: "Kalamazoo information echo one-one-zero-zero zulu. Weather—indefinite ceiling one hundred, sky obscured. Visibility—one-half mile, fog . . ." At 0657, the Convair "Flight 801" taxied to the active runway.

Prior to takeoff, the first officer had computed the following takeoff data based on a gross weight of 50,000 pounds: V1—107 knots; VR—109 knots; V2—111 knots. BSEC, or best single engine rate-of-climb, was computed to be 132 knots. At 5 seconds past 0700, the captain commanded "Power," and the aircraft began its takeoff roll.

At 0700:21, the first officer called "V1" and the flight data recorder (FDR) indicated that, although the indicated airspeed of the aircraft was about 107 knots when the call was made, the captain had actually begun rotation just before the V1 call. At 0700:22, as the aircraft was lifting off, the first officer announced "power loss." Immediately thereafter, the cockpit voice recorder (CVR) recorded engine spooldown sounds.

The first pilot stated he heard a click which he believed to be a propeller feathering itself automatically. He saw the left engine TIT gauge reading about 460° to 470° with the horsepower dropping rapidly.

Four seconds after the "power loss," the captain asked the first officer to call the tower. The first officer did so pushing the power levers full forward, setting "max power" on the right engine. The first pilot thought he had raised the gear but the CVR didn't record that command, nor the sounds of the gear retracting. Meanwhile, the aircraft had entered the overcast and the FDR indicated that a heading change to the left—a bank into the "dead" engine—had begun just after takeoff and continued until impact.

At 0700:58, the ground proximity warning system sounded, and the aircraft immediately began a climb from about 200 feet AGL to about 260 feet AGL—the highest altitude reached during the flight. As the airspeed decreased to about 104 knots, the captain allowed the aircraft to descend slightly in order to recover airspeed. The GPWS sounded again and continued for the remaining 42 seconds of flight until impact.

As the aircraft continued to descend, some trees and a house appeared in front of the captain. He realized the crippled turboprop was not going to make it back to the Kalamazoo airport, so he positioned the Convair 580 to land in a nearby cornfield.

. . . the first officer announced "power loss."

At 0701:34, the captain commanded, "Give me everything she's got. Gear up, everything else." This was followed at 0701:36 by the captain restating, "Get the gear up, quick." The CVR recording ended at 0701:40.

The aircraft came to rest in a field about 1.7 miles east of the departure end of runway 17. The aircraft had flown about 2.7 miles and had turned about 123° to the left before impact. The left wingtip and aft portion of the fuselage struck the ground first. After impact, the aircraft slid about 433 feet. The landing gear was in transit at the time of impact. There were no fatalities as a result of the crash but the first officer and two passengers received serious injuries.

Analysis

As the aircraft passed V1, a small sparrow hawk was ingested into the left engine. This caused the left propeller to feather automatically when the thrust-sensitive system detected a propeller thrust of less than 500 pounds. The right engine and propeller were examined and found to be operating properly at impact. This last finding was contrary to the first officer's statements. He believed that the right engine was *not* operating properly based on his observations of the aircraft's inability to climb and to accelerate. According to the National Transportation Safety Board (NTSB), however, the position of the landing gear and the manner in which the aircraft was being flown were the reasons the aircraft was not accelerating properly. Although the autofeather of the left propeller and the shut down of the engine were the first in the sequence of events which led to the accident, the untimely actions of the crew ultimately caused the Convair to crash.

The first officer made the V1 call about the proper airspeed at 0700:21. The commercial airline operator's procedures stated the crew was to begin rotation "a couple of knots past V1" to cause the aircraft to lift off the runway at VR or shortly thereafter. According to the pilot's company procedures, when "power loss" was called at

an airspeed of 109 knots, the VR call would normally have been made, and the aircraft still should have been on the runway. The captain compounded the emergency situation confronting him, however, when he rotated the aircraft before VR. Had he not rotated until 109 knots, normal rotation would have resulted in additional airspeed which, in this case, was critical. After the power loss, the captain correctly ordered maximum power for the right engine. The next appropriate command should have been "gear up—check for feather or fire." Instead, the captain instructed the first officer to call the tower—an inappropriate call for that time. The first officer then advised the tower they had lost an engine and would be returning to land even though the airport was below landing minimums.

The failure to raise the landing gear represented a breakdown in cockpit procedures and discipline. It was a critical step in the sequence of events which ultimately led to the crash. The NTSB believed the captain failed to issue the proper commands because the autofeather came unexpectedly and at a critical point in the flight. Preoccupied with flying the aircraft, the captain mentally backed himself into a corner by attempting to return to the airport. The first officer was initially distracted by the out-of-sequence command to call the tower. Later, he became concerned with performance of the right engine and the inability of the aircraft to accelerate to V2. As a result the gear was not raised.

Next, the captain further aggravated the emergency by allowing the aircraft to bank into the left or "dead" engine. The pilot also must have introduced a significant amount of aileron while attempting to control the bank. This added substantially to the increased drag caused by sideslip, rudder displacement, and the extended landing gear. These additional drag forces stopped the Convair's acceleration, so critical in a successful single-engine takeoff procedure. The pilot continued these control inputs, the NTSB concluded, to a point where the airspeed had decreased below

. . . the gear was in transit at . . . impact.

minimum control speed. The result—the aircraft crashed before a safe recovery could be accomplished.

Probable Cause

The NTSB determined that the probable cause of this accident was the captain's failure to follow the prescribed engine-out procedures during IMC conditions. This allowed the aircraft to decelerate into a flight regime from which he could not recover. Contributing to the accident were inadequate cockpit coordination and discipline.

The two most critical procedural errors on the part of the crew were the failure to raise the gear as required by the emergency procedures, and the bank into the inoperative engine. Failure to raise the gear was not, by itself, sufficient to preclude a successful takeoff and climb. However, when compounded by a turn into the inoperative engine, lateral and directional control were sacrificed and drag was increased substantially.

The Safety Board believed that had the captain continued to climb out straight ahead, the likelihood of excessive left bank would have been reduced. However, the decision to return to the airport not only compounded the situation, but demonstrated poor judgment, since the airport was below the landing minima for any published approach. The more prudent decision would have been to proceed to a good alternate airport. (The destination airport, Detroit, had clear sky conditions with 1½-mile visibility.)

As we enter the bird migratory season this fall, let's remember that all of us can experience birdstrikes on takeoff. Contending with this or any critical emergency on departure roll may not only tax our abilities, but if handled incorrectly, can cost us our lives. We may also find ourselves in a situation where our departure weather may not be particularly sterling but above minimums. The old adage from undergraduate flying training, if it had been followed here, might have prevented a "bent" plane and the needless danger to the lives of the passengers on the Convair:

- Maintain aircraft control.
- Analyze the situation and take proper action.
- Land as soon as conditions permit.

—Adapted from NTSB-AAR-79-4

Volant Rodeo—'82

by Captain Byron L. Howard
Associate Editor

A favorite pastime at Volant Rodeo—trying to figure out "who's on first."

Col. Edsel Field, 317 TAW commander, talks about Volant Rodeo with Gen. James R. Allen, CINCMAC. Looking on is this year's "CINC-Rodeo," Brig Gen Robert B. Patterson, 21 AF vice commander. Photo by Ken Cooke, *The Fayetteville Observer.*

Major Pat Hanisee, navigator on the
zone photo prior to a Volant Rodeo f

The word "rodeo" (pronc
pants Easterners) is a v
up, or a contest involving ho
horses and bullriding, howe
didn't have either one. Nov
siderable amount of bull thr
words don't weigh nearly a
those of you were reared we
the Red River who have trou
horses, let me explain.

Since 1979, MAC has sta
the "best of the best." Off
Competition, Volant Rodeo
for the more than 800 Air
active duty participants. A
aircrew members, Volant
security police, maintenan
aerial port technicians.
surrounding the activities.
Britain, Germany, and Italy
in vying for top honors. But
like? Well, I'll tell you.

Captain Chuck Martell, aircraft co
gives a friendly wave after his cr
first mission at Volant Rodeo.

n the 437 MAW team, takes a last look at the drop
odeo flight.

pronounced rō-dē-ō, or rō-dā-ō for you fancy-
s a word of Spanish origin meaning a round-
ng horses and bullriding. Not all rodeos have
however. Take Volant Rodeo for instance. It
Now, that's not to say there wasn't a con-
ll thrown around during this event. But then
rly as much as a Brahma—bull, that is. For
ed west of the Mississippi River and south of
e trouble with this concept of a rodeo without

as staged a yearly competition to determine
' Officially named the MAC Tactical Airdrop
odeo serves as a readiness training exercise
Air National Guard, Air Force Reserve and
ts. Along with aerial delivery skills of the
ant Rodeo also tests the combat skills of
tenance personnel, combat controllers and
ns. There is also an international flavor
ities. This year, teams from Canada, Great
Italy joined with their American counterparts
s. But what exactly was the competition really

FLYING IN A RODEO

As an editor for the world's greatest flying safety magazine, I was allowed to plop my preponderous paunch upon the flight decks of several of the participating aircraft. My first flight was with Captain Chuck Martell and his C-130E aircrew from the 36 TAS, McChord AFB. As with most of the aircrews I met at Volant Rodeo, this one was quiet, self-assured, and exhibited a large amount of esprit de corps. The first flight was a good one, too. They hit every checkpoint right on the money, put their load out in good fashion and came within a few seconds of hitting their scheduled TOT. The short field assault landing back at Pope came off pretty well, too. (Pilots flying C-130s, and the Germans flying their Transall C-160, were required to make three max-effort assault landings to determine the best C-130 crew. However, these points did not count toward "best overall team" or "aircrew" in the competition—Ed.)

In between flights, I had the privilege to chat with some of the other team members. Everyone, it seemed, had their own tried-and-true techniques to guarantee a perfect drop or TOT. One navigator had a "sure" way to remind himself of the inflight warnings before a drop—he had a kitchen timer.

"Before we came here, I bought two different kitchen timers. On the way out, we tested each one for loudness and accuracy," informed Captain Frank Cash, navigator with the 445 MAW (Associate) from Norton. When I finally got to fly with this crew, there on the nav's table was the loudest and the most accurate kitchen timer. It worked, too. This crew never missed a warning. And you really could hear the timer on the flight deck of the Starlifter.

Other crews had different techniques. The copilot from the 165 TAG, Savannah, Georgia, had a stop-watch mounted over his head, close to copilot's overhead hand-hold. As a checkpoint passed underneath the plane, he would start timing to the next checkpoint for which he also knew the time. The quiet, reserved demeanor of this Air National Guard-crew showed the professionalism for which they are known.

There were a lot of individual stories, too. One of the most inspiring was about the young British entrant in the combat control

raft commander of the 36 TAS team,
his crew successfully completed their
.

Lt Col William P. Bland, 165 TAG team chief, salutes his aircrew as they taxi out for their last mission at Volant Rodeo. Other members of the Savannah, Georgia-based ANG outfit stand at attention behind him.

The agony of victory! British Corporal Chris Chandler is supported by a teammate following his record breaking six-mile CCT run with 44-pound pack. Cpl Chandler completed the run in a record 47 minutes, 13 seconds—broken leg and all! (Photo by SSgt Ernest Sealing)

6- mile run with 44-pound pack. This young man had broken his leg the day before, but refused to wear a cast. He entered the race, beat everyone and set a new record for the event.

Brigadier General Robert B. Patterson, 21st Air Force Vice-Commander and overall competition commander, summarized the individual effort put into Volant Rodeo when he said, "Esprit de corps was higher than ever, not just among aircrew, but among all members—maintenance, SPs, combat controllers, the MAPS/JI guys—everybody. My hope is that they'll take home the lessons learned here and pass them on to others. This will improve the performance of everyone involved." At the end, he summed up the real meaning of Volant Rodeo, "What we learn here will improve our ability to do our job, which is to put the goods on the target, *everytime!*"

Yessir, it was a mighty interesting rodeo. A rodeo where cowboys rode the wind. A rodeo without a horse or a Brahma—bull, that is.

The WINNERS!

When the dust had finally cleared, winning top honors as the best overall wing—"the best of the best"—was the team from Italy. Other team winners in different categories were:

Best C-141 Aircrew	**438 MAW, McGuire**
Best C-130 Aircrew	**314 TAW, Little Rock**
Best C-130 Shortfield Landing	**439 TAW (AFRES), Westover**
Best C-141 Maintenance	**63 MAW, Norton**
Best C-130 Maintenance	**Germany and Great Britain (Tie)**
Best C-141 ERO	**437 MAW, Charleston**
Best C-130 ERO	**317 TAW, Pope**
Best Joint Inspection	**439 TAW (AFRES), Westover**
Best Security Police Team	**435 TAW, Rhein-Main**
Best Combat Control Team	**435 TAW, Rhein-Main**

Members of the 345 TAS, Yokota, sport authentic Japanese "good luck" headbands. (Photo by TSgt Ken Hammond)

The thrill of victory! The team from Italy proudly displays the trophy proclaiming them "the best of the best."

MILITARY AIRLIFT COMMAND

EXCELLENCE IN AIRMANSHIP

Standing left to right: SSgt Lee, MSgt Ford, FE; MSgt Younggren, FE; Capt Wilen, CP; Capt Delucca, AC; and Capt Albertini, N. Kneeling left to right: MSgt Wiscavage, LM, TSgt Eberhardt, LM; and SSgt Gilmore, LM. Not pictured: SMSgt Berger, FE.

Captain Delucca and crew, 312 MAS. This reserve associate crew departed Travis AFB on a routine C-5 training mission. Upon arrival at McChord, the crew prepared for a "normal" approach and landing. The landing gear handle was placed in the down position and the main gear extended and locked normally. Unfortunately, the nose gear showed "in transit" and remained in that position. Captain Delucca flew a low approach over the field and the tower visually confirmed the nose gear up, the left nose gear door closed, and the right nose gear door open.

Entering holding at McChord, the Galaxy crew began troubleshooting the problem. First, they attempted to use the nose gear emergency extension with hydraulic pressure. During these procedures, the crew heard loud crunching and banging noises and the flight engineer noticed a loss of pressure and quantity in the number-1 hydraulic system. Next the crew tried the emergency extension procedures with no hydraulic pressure available. This procedure also failed. In addition, a conference skyhook's recommendations either did not work, or had already been tried. By now, the crew had been in the McChord pattern for almost 2 hours and their fuel supply was getting low.

Captain Delucca made the decision to land at McChord with the C-5 nose gear up. The crew checked and rechecked all checklists, ensured all loose items were stowed, briefed the passengers, and reviewed their individual responsibilities. On final approach, the nitrogen fire suppression system was discharged into the nose gear well. Upon landing, the nose was held off the ground until just prior to loss of elevator authority which occurred at approximately 80-90 knots.

After the aircraft skidded to a stop, the passengers and crew of the Galaxy vacated the aircraft with no injuries while McChord's fire department extinguished a small fire in the nose gear. Result: minimal damage to the C-5.

Major Delucca and his crew's professional performance and coordinated efforts in this potentially hazardous situation prevented loss of life and minimized serious damage to a valuable Air Force aircraft.

Captain Perry and crew, 6 MAS. A copilot on her first line mission as a C-141 pilot, Second Lieutenant Joanne Guretsky started the left turn after the night takeoff from Hellenikon Air Base, Greece, enroute to Rota Naval Air Station, Spain. Flight control response of the Starlifter was not normal, however, and Captain William Perry, the AC, immediately assumed control of the aircraft at about 2,000 feet, when the aircraft failed to roll out of the left climbing turn.

To recover the C-141 back to straight and level flight, Captain Perry used a right wheel throw of about 35° and 25 pounds of pressure. Further right wheel throw and increased pressure allowed a slight right bank of about 15°. Meanwhile Captain Perry leveled the aircraft at FL 080 and a third pilot, Captain Bruce McDermott, switched seats with Lieutenant Guretsky.

The scanner, Staff Sergeant Walter Salley, went back to check the ailerons the crew suspected

Standing left to right: Capt Perry, AC; Capt McDermott, FP; Lt Guretsky, CP; and SSgt Kurcewicz, FE.
Kneeling left to right: SSgt Salley, FE; Sgt French, LM; and Sgt. Nelson, LM.

were jammed. Since darkness made it impossible to determine which aileron had malfunctioned, the aircraft made a low pass over Athens. Using the lights from the ground to illuminate the wing, the scanner was able to confirm that the left aileron was stuck in the "up" position.

Entering a holding pattern west of Athens, the C-141 crew accomplished the jammed aileron checklist. Both switches for the left aileron were moved to "tab operable" and additional right and left turns confirmed the left aileron was still stuck. Captain Perry moved the aileron switches back to "normal," which allowed slight movement. Though no aileron trim had been used up until this time, 4° of aileron trim were now introduced to maintain a level flight attitude at 200 knots airspeed. The crew completed a controllability check with gear down and approach flaps. The controls were somewhat sloppy with reduced aileron effectiveness and some left rudder was required to fly the aircraft precisely.

With the final briefing complete, the crew began an ILS approach to runway 33 with approach flaps. They flew an extended final with shallow turns, minimizing aileron inputs, and the landing was accomplished without incident. This crew's coordinated and calm response overcame a very hazardous situation and clearly demonstrated excellence in airmanship.

A Rote Primer, or

Europe on $250 a Day

One final piece of luggage you'll need is a small attache case—filled with $20s.

by **Major Howard R. Allan**
Executive Officer—463 TAW / DO
Dyess AFB, TX

Ah, rotation, That cyclical madness which evokes strange passions in those whose lives are touched by it. Wives *hate* it. Bachelors *love* it! Europeans tolerate it. And you, you lucky devil, are going to do it! I know it's your first "rote," but there's no need to fear, for I, drawing on a virtual lifetime of travels and experiences to far and distant places (Texas being one of them), have compiled several tidbits collected from the most seasoned "rote-goers," and my own sojourns to the old country. These nearly priceless gems are yours free, but will cost you plenty when published in my forthcoming book, "World Pastry Shops I Have Known." Anyway, here is that potpourri of travel knowledge no first-time "rotater" should be without.

First and foremost, select your aircraft commander wisely. (Here I put to rest once and for all the popularly held notion that aircraft commanders pick "their" crews. In reality, crewmembers should pick their ACs.) Go to your operations officer right now and request an AC who meets your particular needs. There are several breeds of this cat to choose from, so pick carefully. Two months is a long time to be paired up with an Oscar Madison (or Felix Unger if you emulate Oscar). Avoid the type who runs to the bus while the props are still winding down. This AC likes to say things like, "Hurry-up,-crew—you're-working-on-our-time - now." This left-seater also never sleeps. So, my best advice is avoid this type if you like to go to bed occasionally. Also avoid the "gung-holier-than-thou" type. He likes to sit over there on his "throne" with a smug look on his face while the nav, copilot, and engineer try to decipher the foreign controllers' English. This cat's favorite expression is, "Did you get that, co?" And he likes to say it over, and over, and over, and *over.* Another type you definitely don't want is the 10-

rote veteran. This AC has seen, done, eaten, drunk, bought, sold, and heard *everything* that is even remotely associated with rotation. So he, consequently, won't make a very good travel guide for you, the first-time rotater.

The type of aircraft commander you want is patient, understanding, helpful, brave, courteous, kind—wait a minute. Do you want an aircraft commander or a Boy Scout? Anyway, this stalwart speaks 22 languages fluently, knows every head waiter in every RON locale and can convert dollars to pounds, pounds to deutschemarks, deutschemarks to pesetas, pesetas to drachmas, and most importantly, convert it all back to dollars again. He will normally change his underwear daily and even let the copilot land the airplane

. . . rent a bicycle . . . or buy a "rote car" if you have a masters in auto mechanics.

occasionally. It also helps if *he* can land the airplane—safely! Now since I can't go with each and everyone of you first-timers, use this guide to select an alternate.

After your crew is formed, your next step is to prepare for a 60 to 70-day trip away from home. First, buy three suitcases in addition to your standard issue, been-around-the-world-more-times-than-you-can-count B-4 bag. The first suitcase is for arctic gear for junkets to Norway. The second is for rain gear for England. The third one is for beach attire for all countries bordering the sunny Mediterranean. (A tuxedo is optional for your 6-day pass to Monte Carlo.) Also bring an empty footlocker for those inevitable "rote treasures" which have an uncomfortable way of multiplying in your room while you're downstream. Also bring a 1,000 page novel. Add a pack of antacid tablets and a big bottle of "peptodismal" to your "dopp" kit and you're ready to go. Oops! One final piece of luggage you'll require is a small attache case—filled with $20s. One more bit of preparation includes a week or two in the "books." Learn how the NAT tracks work, practice your position reporting techniques and get ready to cross the "pond." Now you *are* ready for rote. *First stop: Goose Bay.*

Read your novel. After you do this, you'll *still* have time to hit the books one more time, practice your position reporting procedures and review FLIP European procedures. Get a good, long sleep prior to crossing the Atlantic. If your trip to England is typical, you'll end up with an early evening takeoff for an early morning arrival. This will do strange and wonderful things to your body, as you'll soon see. Now is also a good time to review the European IFR Supplement on Mildenhall, England—that *is* where you're going. The first caution is a one-liner referring to possible ". . . concentration of birds on or near A/D." Remember, this refers to the feathered variety. *Next stop: Mildenhall.*

Well, this is it—the Mother Country, separated from the U.S. only by a common language. And speaking of language, you'll need an "English" lesson before venturing into the countryside. "Chips" as in "fish 'n' chips," are actually french fries; "crisps," on the other hand, are potato chips. "Yorkshire pudding" isn't, and "steak 'n' kidney pie" is. "Dear" means expensive and a "dispensing chemist" is a pharmacist. An "articulated lorry" is a truck driven on the left side of a "dual carriageway." And if the "lorry" is too noisy, it needs to have a "silencer" fitted, otherwise known as a muffler. Now a quick word about English food . . . oh well, the British do have excellent table manners.

Shortly after you've recovered from "prop-lag" and a slight case of "culture" shock, you'll then find yourself down at the 313th Tactical Airlift Group for a "Theatre Briefing." Sometimes this succession of speakers is held in the base theatre, but the name actually means you are to receive the standard safety briefing—do's and don'ts—which, if you listen closely enough, will ultimately result in your safe return to the ZI, in approximately 70 days. Along with this, pay special attention to the Buffer Zone briefing, as you will not, under any circumstances, want to trespass into "their" territory. Another trip through the books to understand the English "nordo" procedures, a couple of trips "out-and-back," and you are now ready for a little sightseeing.

I highly suggest you rent a bicycle from "rec services" (or buy a "rote car" if you have a masters in auto mechanics) and trundle on down to the village of Mildenhall. See the old church, have lunch in one of the hotels across the street, and take particular note of the buildings. Most are

older than the U.S. Constitution. After a couple more trips to the continent, a 3-day pass might present itself about this time. If it does...

GO TO LONDON!

This side-trip is really worthwhile. The "bed 'n' breakfasts" (small hotels) near Paddington Station are both convenient and homey. To get the most out of your trip, your best bet is to con someone who has been to London before to accompany you. And I can't even begin to tell you all the sights available. Don't pass up this opportunity to see the river Thames, the Tower of London, the Queen (as in God Save the . . .), the Houses of Parliament, etc. Oh, and don't miss St. Paul's Cathedral, in case you weren't invited to H.R.H. Prince Charles' and the Lady Diana Spencer's wedding. Don't miss the crown jewels displayed in the Tower of London. They are not displayed in February—a schedule that hasn't changed since the 15th century—so don't say you weren't forewarned. More on the vicinity of Mildenhall later. Anyway, your ops officer just picked your crew to go to Turkey.

Wait! Put down that gun.

Turkey can be fun . . . with the right attitude.

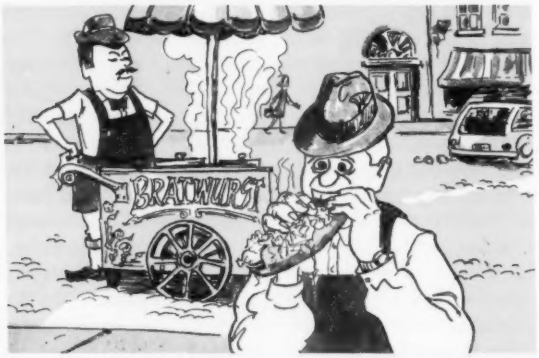
Turkey *can* be fun with the right attitude. And the best way to enjoy some of the best flying in Turkey is to stay in the books and keep a sharp ear to the radio. The Turks are also some of the friendliest people in the world. There are excellent beaches near Incirlik and a trip to Adana City is a living history lesson. Walk among the shops by the clock tower and you'll see old-world craftsmen making almost anything and everything by hand. The food is good in this land where East meets West, and if you find a bakery you'll see why the Turks love sweets. Most find the leather coats, copper, and brass the least resistable of the "good deals" down here, and your 2 weeks will pass quicker than you want. Anyway, your "minirote" has just ended and you and your stalwart crew must now press on to Aviano Air Base near Venice.

As you enter Italian airspace, a word about the radios—listen carefully. Italian is a beautiful language when spoken by Italians to Italians. You on the other hand, should stick with standard ICAO phraseology while flying through Europe. And when in doubt, ask again. Anyway, the food at a famous restaurant near the town is legendary and it won't take long to find it. Your wallet will also lead you to several gift shops located conveniently just outside the walls of the compound near the billeting office.

Now for a little backtracking. Brush up on your holding procedures (ADF and VOR), and reporting procedures, and hope you don't arrive at Athens' Hellenikon Air Base during "rush hour." If you do, be prepared to practice those holding procedures you just retrieved from your memory bank. The rule of thumb to use when arriving here is to keep the cockpit quiet, listen to the radios (your standing professional technique everywhere, but here especially) and try to keep thoughts of souflaki out of your mind until you're safely on the deck. But once you hit the "Q" let your mind (and stomach) run wild. The patisseries, or sweet shops, and bakeries are indescribable. Restaurants with good food abound. I, myself, have a reserved seat at several restaurants in Glyfada—the Athenian suburb where the Officer's Club is located. Another 2-week minirote here will offer ample opportunity to see the Parthenon, the Acropolis, the "flea market," and maybe even enough time to visit the surrounding islands. The Acropolis and flea market are located just a short bus ride across town from the "Q". In season, the beaches may be too much for the weak of heart.

Next, on to Torrejon. Located just outside Madrid, this predominantly fighter-oriented base is just a stone's throw from the Barajas International Airport. Needless to say, the potential for traffic conflict (airliners and fighters) is high. Eyes out of the cockpit and ears tuned to English with a Spanish flavor can make the going safer. The gift shops located on base make shopping easy, but a trip downtown is also worthwhile. The Spanish are noted for their porcelain figurines which are guaranteed to make someone back home (remember home?) very happy. The Prado Art Museum is a must even if you don't like art. Having visited the museum, you are now an instant expert when trying to impress someone who hasn't, to wit, "Why, I've seen several Goyas. Haven't you?" Bullfights are optional.

Taking off for the final leg of this mini-odyssey, your next two stops, in rapid succession, are Ramstein and Rhein-Main, two well-known jumping off locations for all of MAC. As always, listen up to the radios while crossing France. Speak only ICAO English and be courteous, *PLEASE!* And even though Northern Europe in general is now almost as heavily covered by radar as is this country, don't let your guard down. Once, while holding at Rudesheim I saw an airplane below me who, I was told later, was the last airplane not to have complied with a German air traffic controller's instructions—it was a Fokker Triplane. Anyway, the quarters at both locations are excellent as is the food. But then, I never met a bratwurst I didn't like. There are more delightful places to visit than the editors of this magazine will allow me to write about, and besides, I want to leave some element of surprise for you. When



I never met a bratwurst I didn't like.

you find your "Shangri-la," write me and tell me all about it, especially the food.

Oh, yes. I nearly forgot. Before you go home, you might be lucky enough to have a day or two to explore the surrounding towns and villages near Mildenhall. A good place to start is Cambridge, a historic center of learning. The cemetery for the American dead of World War II is a must stop. It is a moving experience. Among the town's shops can be found woolens and china, both specialties of the area. If you are of Scottish descent, you may even be lucky enough to find your family plaid there. Newmarket, just down the road, is famous for its horse racing. And just a short bus ride from Mildenhall is Burry St. Edmunds where in 1214, the English Barons took oaths to compel King John to sign the Magna Carta. If this primer is too short, I highly recommend contacting the community relations adviser at Mildenhall, Joan Abbs. She can assist you in seeing all there is to see with the time you have.

Well, it is now time to go home to America, land of the free and home of the "fruit fly" and "radar contact." And speaking of "radar contact," a short course on U.S. procedures may be necessary to refresh your memory. After all, it would be embarrassing to report, "Cleveland 1647, flight level 240, Indianapolis at 1715," although you probably wouldn't be the first. So pack your bags, put them in the tender loving hands of your friendly MAPS troops and relax. Before you know it, you'll be back at "the Goose."

Finish your novel.

Last stop, home plate. As your trusty Herk's props wind down, you may be asking yourself who all those men are who have surrounded your plane. Why, they're U.S. Customs officers. Darn! I forgot to tell you about customs, didn't I? Well, I guess you'll have to pay a little duty on those "trinkets" and "beads." You still have the attache case filled with $20s, don't you?

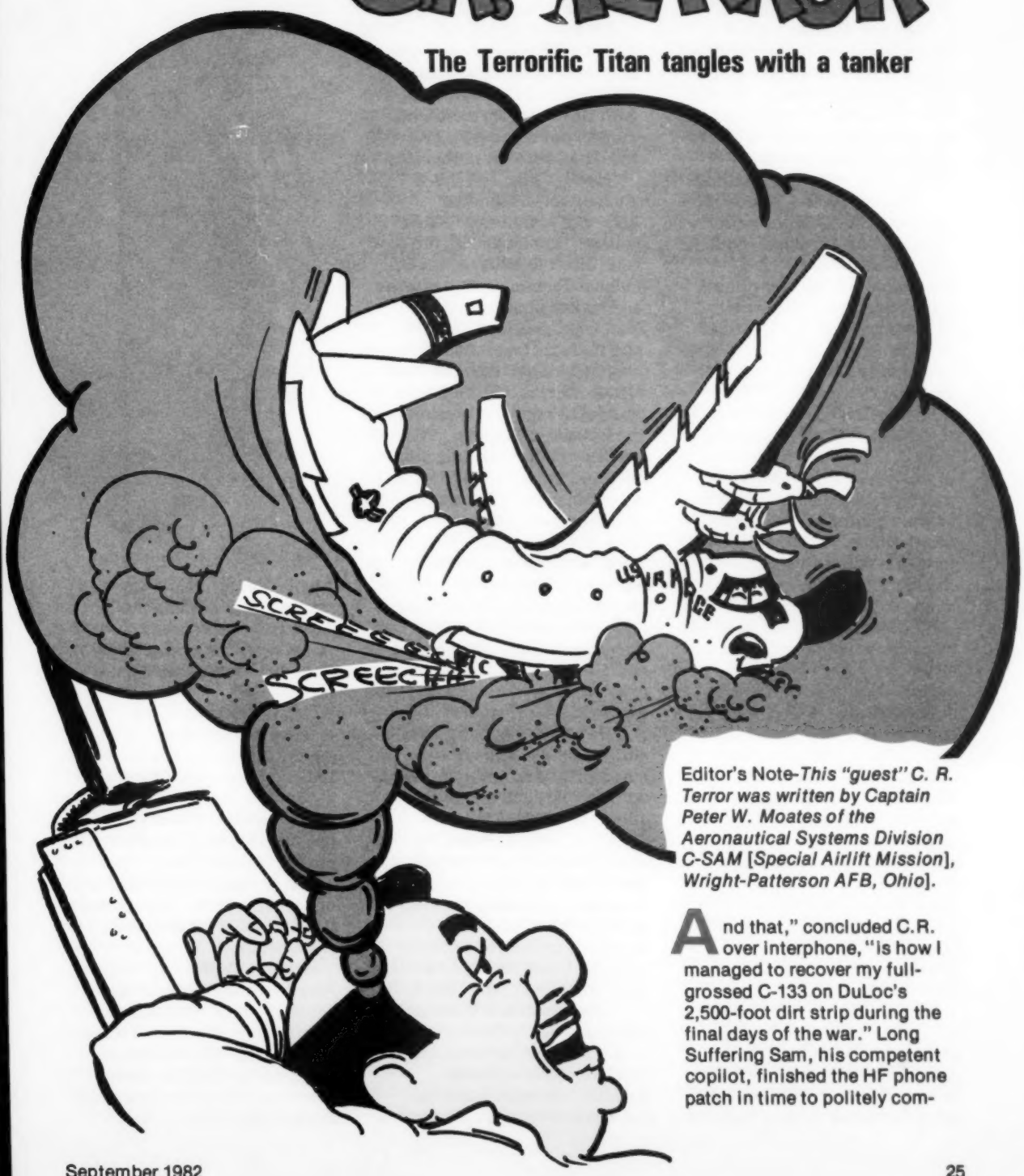
Rote is good. Rote is fun. Flown safely, it can be an extremely rewarding experience. And now that you have safely completed your first rote, you are a "rote hog." Congratulations! And see you next rote.

ABOUT THE AUTHOR

Major Howard Allan hails from upstate New York where he graduated from State University of New York at Geneseo. After an OTS commission in 1967 and UPT at Reese AFB, he flew C-123s at Danang and Hurlburt Field. Following consecutive overseas tours at Kinshasa, Zaire, and Ankara, Turkey, Major Allan was assigned to the USAF Survival School at Fairchild AFB, WA. He is well-known on the dining-in circuit as the oldest "Mr. Vice" still on active duty.

C.R. TERROR

The Terrorific Titan tangles with a tanker



Editor's Note-*This "guest" C. R. Terror was written by Captain Peter W. Moates of the Aeronautical Systems Division C-SAM [Special Airlift Mission], Wright-Patterson AFB, Ohio].*

And that," concluded C.R. over interphone, "is how I managed to recover my full-grossed C-133 on DuLoc's 2,500-foot dirt strip during the final days of the war." Long Suffering Sam, his competent copilot, finished the HF phone patch in time to politely com-

ment that C.R. was the only pilot he had ever heard of that flew C-133s so late in the Southeast Asian conflict.

Sergeant Torque sighed slightly as Sam quickly added, "By the way, Boss, that was 21st Command Post confirming that the tanker is estimating the refueling track a little earlier than expected. They'll be holding for us 'til we get there."

"Thanks, Sammy m'lad," C.R. replied. "It's absolutely nifty what we can do now that our noble Starlifters are air — refuelable." A familiar glaze seemed to descend over the Soporific Storyteller's eyes as he rambled on, leaving the rest of his crew to monitor the cruising C-141. "Just think of it," mumbled C.R., "a mere basic crew and we're going to make it all the way from the land of the free and the home of the fruit fly to Moldenhill, England, in one nonstop duty day. And, besides that," added C.R., in a tone that sounded slightly thoughtful, "we have a chance to show once again that our magnificent airlift fleet need not be as constrained as it once was by landing rights in far away places. Woe be to him who doubts Mother MAC's newly-augmented ability to rapidly deploy our forces wherever needed." While the almost Eloquent Aviator paused in semi-deeper thought, Blinky and Sam exchanged glances that reflected nothing less than amazement.

"Gee, Boss." Sammy interjected, "I had no idea you were so concerned with the strategic implications of the Stretch pro . . ."

"But, best of all," the Tuned-out Terror continued, "with an aerial refueling out and one scheduled on the way back, I'll be home in plenty of time to mix some Terrorific' tinis at Tassel's birthday party Saturday night. You should see the little trinket I picked up for her at Friendly Dilbert's Pawn Shoppe."

Blinky moved his wafer switch from UHF #1 back to interphone and interrupted C.R.'s reverie. "I've finished the initial relays with Gassy 11. He's orbiting the control point and we'll be over the initial point in 19 minutes."

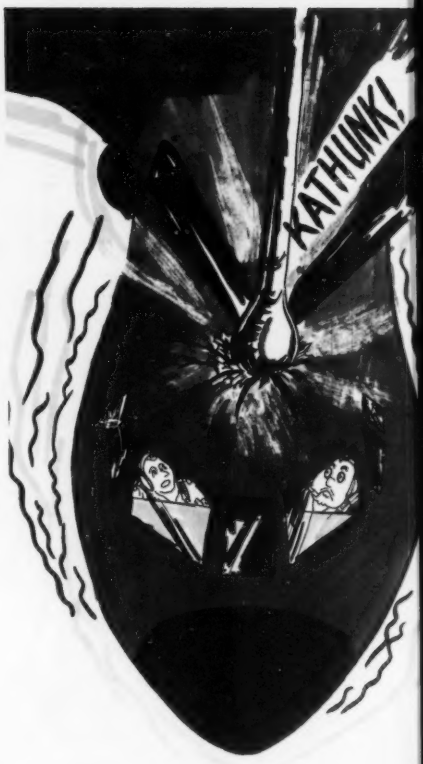
"Huh? What, ? " The immediately Befuddled Aeronaut fumbled for the adjustment knob beneath his seat in an effort to slide his corpulence forward from its full aft and locked position. He instantly dropped to a 30° tilt position, his fingers still firmly wrapped around the seat lever clearly labeled "recline."

"Sergeant Torque," blustered the Bulbuous Bumbler, "make sure this malfunctioning seat gets written up in the 781. It should be part of the maintenance types' preflight anyway."

By the time their Errant AC managed to recover from his seat's unusual attitude, Sam had coordinated with center for the required descent to rendezvous altitude. Blinky, meanwhile, was completing the final relays to the tanker.

C. R. deftly disconnected the altitude hold portion of the autopilot and ran three full nose-down revolutions on the pitch controller. As the obedient Starlifter lurched toward its newly assigned altitude with its crew suddenly weightless in their seat restraints, the Field-grade Fumbler began a discourse on his very recent exploits during requalification in aerial refueling at the "Big A."

"It was magnificent, Sammy," C.R. bubbled. "After my scheduled training rides and a check ride, the stan-eval weenies requested a special dispensation to keep me around



a while longer. No doubt they wanted time to completely absorb my superb aerial refueling techniques. Funny though," mused the Misinformed Major, "just when I thought I had him trained, my primary instructor put in his papers and took a job at the infamous local stockyards."

"Sorry to interrupt, Boss," Blinky cut in, "but we're only a few minutes from the IP, can we get the checklist done now?"

"Er, uh, took the words right out of my mouth," stammered C.R. "Precontact checklist, engine room."

Without hesitation, Sergeant Torque replied, "Roger, rendezvous check' He began reading from the checklist that the forgetful AC should have called for, while C.R. wolfed down the last of his desiccated chicken loaf snack.

With his skilled navigator directing the rendezvous, the Ace of Aerospace soon found himself closing smoothly on the KC-135 from 1 mile astern. With beautiful weather, all checklists complete, and the sun on his tail, C.R. managed to bring his aircraft more or less uneventfully into a precontact position 50 feet aft of the tanker.

"Piece of cake, eh Sammy m'lad?" quipped C.R., as the steady voice of the experienced boom operator reached their headsets.

"MAC 168, call when stabilized."

"Heh, heh—I'm more than ready to show you SAC gas passers, how this air refueling business is done," babbled the Pompous Pilot over UHF #1. Sammy rolled his eyes in disbelief at C.R.'s comment while the obviously professional boom operator calmly cleared the giant Starlifter into the contact position.

Despite C.R.'s considerable wing-rock and pilot-induced oscillations, the Starlifter paused long enough in the contact position for the highly-skilled boomer to place the refueling nozzle in the C-141's receptacle. Then it began. "Back 4 feet, 168," ordered the boomer. "Up 5. Left 4. Stabilize, 168." Beads of perspiration blossomed on C.R.'s forehead as he worked the throttles with the same finesse a drowning man might exhibit flailing for shore. From below, the aircraft resembled a giant wounded minnow, its tail wallowing from side to side as C.R. swapped full rudder inputs.

"MAC 168, return to the precontact position and try coming in again, sir," the prone boom operator directed as he disconnected the floundering 141.

"Must be a new kid boomer havin' trouble hackin' it," hrumphed the Bombastic Buffoon, as he slapped the throttles to idle and shot aft to a quarter mile in trail of the tanker. Then C.R. visibly brightened. "It's obvious, Sammy, that despite my expert handling, the tanker's downwash turbulence and our own bow wave are preventing our magnificent machine from performing its task smoothly." His ashen-faced copilot looked more than a little doubtful. "Why, we merely have to get into the contact position under the tanker to give those guys a chance to grab us. We'll just speed up our closure a bit."

Sam waited for the Master of Aerodynamic Malpractice to pause, then interjected, "Uh, Boss, I'm pretty sure the tech ordered specifies a closure rate of about 1 foot per second."

"Nonsense m'lad," countered C.R., "those restrictions were made by the less intrepid to cover the backsides of the least capable." With that, C.R. called "stabilized," didn't wait for clearance to the contact position, and immediately cobbed all four throttles full forward.

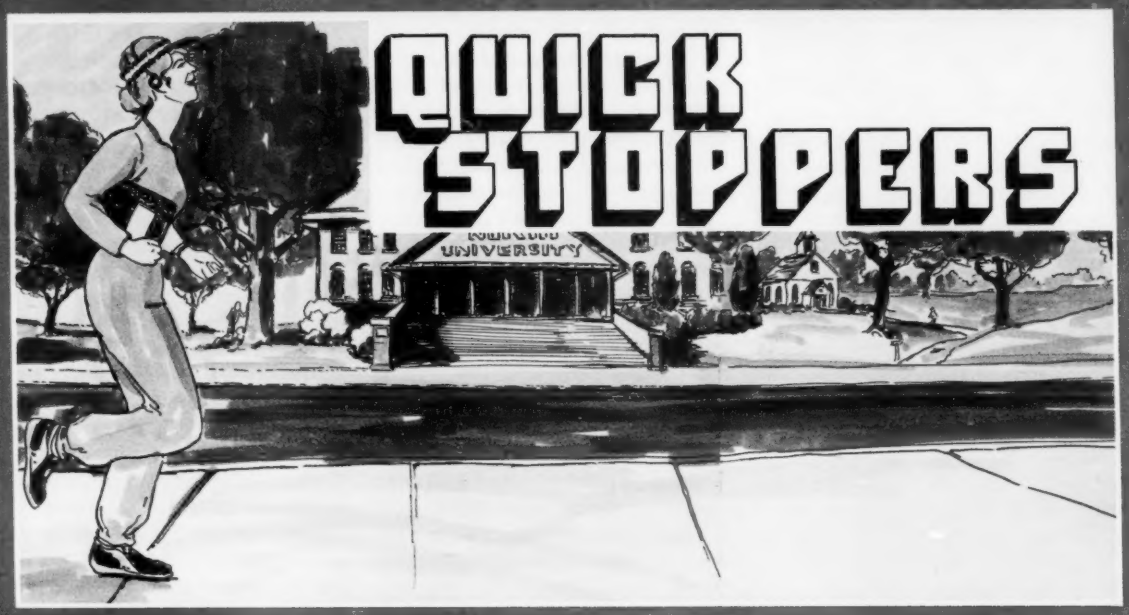
With the four TF-33s suddenly in overdrive, the marginally managed C-141 fairly jumped toward the tanker and its unsuspecting boom operator. "168, slow your closure!" the startled boomer commanded.

"Hee, hee. That young boomer is not used to refueling Starlizards," snickered MAC's Flakiest Flyer without reducing power one bit.

Before the harried SAC man could fly the boom safely clear of the onrushing C-141, a sickening "kathunk" resounded through the Starlifter's flight deck. "Gassy 11, breakaway! Breakaway! Breakaway!" The tanker's call for emergency separation jolted C.R. into a flurry of inactivity and total confusion. Sam, meanwhile, ensured a disconnect from the KC-135, then began a rapid descent with throttles at idle to clear the tanker.

Long minutes later, after sharing damage reports with the tanker which confirmed C.R. had thoroughly mangled the KC-135's boom from its ice shield on down, the Addled Aviator received his first and final communication from Gassy 11's aircraft commander. "MAC 168, this is Colonel Northern Tier—DO for this tanker wing." C.R. paled noticeably as the tanker AC continued. "Never in all my years of flying have I witnessed the kind of inflight incompetence and total lack of professionalism you displayed today." C.R. looked as though his desiccated chicken-loaf sandwich might rise Phoenix-like at any moment. "As I recall," the irate SAC commander continued, "the DO for your outfit is Colonel Fang. When you get to wherever you decide to divert to, you give him a call, pronto. I should be through debriefing him on your performance by then." C.R. meekly indicated to his copilot to acknowledge the colonel's directions, as the KC-135 AC concluded, "And when Fang's done with you, you'll be lucky if you're permitted to refuel your car."

Turning his craft toward a suitable recovery field, the Weakened Warrior mumbled almost imperceptably over interphone, "Well, at least safety and stan-eval ought to be able to wrap up this investigation before the weekend so I can still make Tassel's party." For the third time that hour, Sergeant Torque, Sam and Blinky sighed—in unison.



"5 Feet Too Short"

The pilot of this Cessna 182 was on a local VFR proficiency training flight. During this particular approach, he flared his Skylane and it floated 1,300 feet down the 3,000 foot long runway. The pilot initially continued his touch and go by retracting flaps and resetting the trim. Deciding he didn't have enough room to take off, he advised the tower he would be making a full stop. To expedite clearing, the pilot allowed the Cessna to roll toward the runway end since there were two aircraft on final. With throttles at idle, the pilot applied full braking but found he could not stop on the remaining runway. As the aircraft came to a halt 5 feet beyond the threshold, the nose wheel fell into a 1-foot drainage ditch, causing the propeller to strike the ground. The pilot shutdown the Skylane's engine and promptly egressed without further incident. In this case the aircraft on final could have made a go around while the Cessna safely exited the runway. Handling one's own aircraft during the critical landing portion of flight must take priority over one's concern for other landing traffic as the pilot in this mishap should have learned.

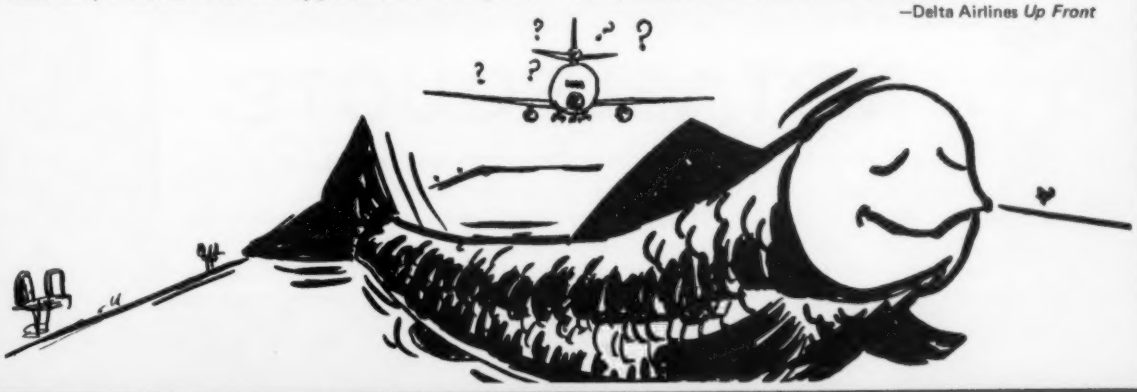
"SOAP" Opera

The HH-3 had been flying support missions for another crew that morning. The oncoming flight engineer for the afternoon flight met the aircraft when it landed, discussed the aircraft maintenance status with the departing aircrew, and performed a levels check. No thru-flight inspection was accomplished as allowed by T.O.-00-20-5, nor was it needed since the aircrew was aware of the maintenance status of the aircraft. No "known" major maintenance was performed. Unknown to the crew though, and after the flight engineer had checked the aircraft, maintenance had come along and taken some "SOAP" samples. The maintenance troops did not inform the flightcrew of their actions nor was there an entry in the forms, except the due time was changed for the next sample. Incidentally, the helicopter mechanic failed to put the engine oil tank cap back on the oil tank after taking the "SOAP" samples. A long retaining chain allowed the oil cap to hang into the engine intake. Can you guess what happened next? During a later takeoff FOD ingestion occurred as the retaining chain broke and pieces of the chain were injected into the engine. Cost of this "SOAP" opera, $14,252.

Twin Beached

Cleared to land from an uneventful approach, the captain of this commercial jet saw something shiny on the runway, sort of like a sardine and roughly the same shape. Once on the deck and near the "fishy" object, the captain moved his aircraft to the left of centerline to avoid a potential encounter with whatever it was. Lucky for his awareness, too, for as he neared the object of his concern, it became all too apparent the "thing" on the runway reflecting the commercial jet's lights was a real Twin Beech—resting on its belly. The tower controllers were completely unaware of the Twin Beech's predicament. In any case, the pilot of the "beached" Beech must have felt totally disgusted with his performance, since he had left the aircraft exactly where it had come to rest—on its belly in the middle of the runway. The exasperated pilot has yet to be found.

—Delta Airlines *Up Front*



A Hail of a Situation

Enroute between the Midwest and the West Coast, a C-130E crew was forced to deviate south of track to avoid thunderstorm buildups. The air traffic controller gave the crew a vector to what *appeared* to be the area of least activity. After approximately 3 minutes on this heading, the crew encountered some moderate to severe icing. The big shock came when they encountered hail for 30-45 seconds before they finally broke into the clear. The crew couldn't find anything wrong inflight but once they reached their destination, found several cracks in the radome.

Investigation of the radar summary along the route indicates that the selected routing was good—until the crew's takeoff time. Then a solid line of thunderstorms began to form along the eastern Rockies. Let the aircrew beware the consequences should they decide to penetrate a thunderstorm area.

NOTABLE QUOTE

Procrastination is a fault that most people put off trying to correct.

—Delta Airlines *Up Front*

AFTER DEADLINES

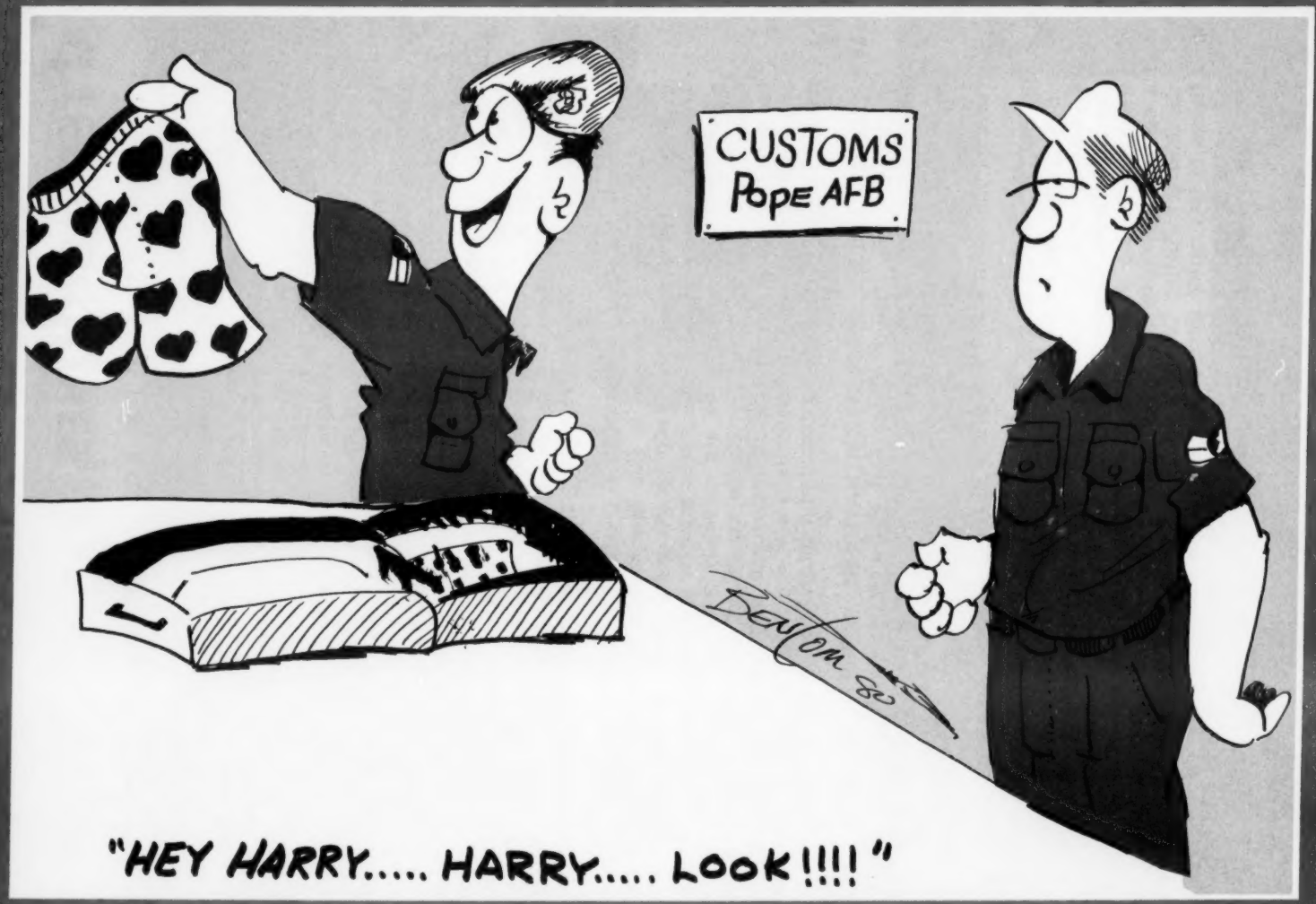
701 MAS, INDIVIDUALS, CITED FOR EXCELLENCE. For the second time in 3 years, an aircrew from this Charleston-based Reserve Associate squadron has won the Air Force Association's President's Award for outstanding aircrew performance. In November 1981, Lieutenant Colonel John Beason and his crew found a Norton C-141 over the North Atlantic which had lost both INSs and all attitude indications at night. Becoming the stricken Starlifter's "artificial horizon," as well as its only way home, Lieutenant Colonel Beason led the Norton crew to McGuire AFB. Other members of the 701st also contributed to the squadron winning two other top AFRES awards--The Claire Chennault Trophy, given by 14th Air Force, and the Grover Loening Trophy, awarded by AFRES Headquarters. In April of this year TSgts Joseph Napoli and Wallace Thomas saved the life of a 31-year old Army sergeant as the man, a passenger on a 701st C-141 mission, suffered complete cardiac arrest. Loadmasters Napoli and Wallace administred CPR and oxygen a total of four times until the stricken passenger could receive assistance when the Starlifter landed. Also in April of this year, TSgt Carl Padgett and A1C Richard Blackwell were instrumental in finding unvented gasoline-filled drums on their C-141 and evacuating the aircraft before the toxic fumes could take affect. We at TMF salute the 701 MAS.

ACCIDENT WAITING TO HAPPEN (AWTH) PROGRAM GOING STRONG! We've had a very positive response to this new mishap prevention initiative and we appreciate your candor. Keep up the good work! So far MAC Flight Safety has received about two dozen reports, and some are more than just a little scary. The narratives are generally well written, but need to be more specific. The more details, the better. If you need an extra page, use it. Also show how to prevent recurrence since that's the real cornerstone of the program. We need each and every form. TMF will begin a regular feature within the next couple of months, so be on the watch.

14TH ANNUAL AIRLIFT ASSOCIATION NATIONAL CONVENTION will be held at the St. Louis, Missouri Chase Park Plaza Hotel, October 15-17. Registration fee after September 15 is $60 per member and $50 for spouse or guest. For registration material, write: Airlift Association Convention, 1423-A Galaxy Avenue, Scott AFB, Illinois 62225. Permissive TDY is authorized for this event with the approval of your commander.

HAPPY BIRTHDAY, BLUE SUITERS! September 18 marks the 35th birthday of the United States Air Force. On that date in 1947, then President Harry Truman swore in W. Stuart Symington as the first Secretary of the Air Force. Eight days later, General Carl A. Spatz was appointed as the first Air Force Chief of Staff. From its beginning, America's Air Force has undergone a continuous trial by fire, proving it was ready for any task. And we in the Military Airlift Command have helped to guarantee that the combat forces of this nation were always where they needed to be, when they needed to be there. We in MAC and TMF proudly celebrate the Air Force's 35th anniversary!

☆ U.S. GOVERNMENT PRINTING OFFICE: 564-017/5



Reprinted courtesy of SSgt Gary Benton in *Blue Wonder* © 1980.